

Applying for experimental work outside office hours in Building 67:

This document describes the procedures to be followed in case somebody wants to perform experiments outside office hours in Building 67.

There are some general rules, which have to be followed in all cases (point 1-8, on this page) and on the next pages 3 scenarios are explained:

- A: Experiment outside office hours during a weekday (overnight experiment)**
- B: Experiment outside office hours starting on a weekday (Monday-Thursday) and including a weekend (Saturday-Sunday) or a national holiday**
- C: Experiment outside office hours starting on the last day (usually Friday) before a weekend or national holiday.**

On the last page some concluding remarks, so please read the complete document!

Before sending the request, the following rules have to be met:

- 1) The person who requests to do an experiment outside office hours is familiar with the working of the setup and knows how to safely operate the experimental setup and how the shutdown procedure is in normal conditions and in case of an emergency.
- 2) The setup has a valid, approved safety report. No modifications have been made after approval of the safety report. If modifications have been made, a new safety report (or addition) has to be made. For small experiments (in the fume hood) a Safety Assessment Sheet (SAS) can be enough. The (Deputy) Area Supervisor will judge if a SAS is sufficient or that a Safety Report is required.
- 3) The setup is in a good condition, there are no failures or broken parts in the setup which are essential for a safe operation of the setup.
- 4) A logbook is maintained and has to be shown upon request
- 5) A proper leak test has been carried out under the pressure of the experiment with an inert gas and successful. This has to be recorded in the logbook (incl. start- and stop time and pressure values at the start and stop).
- 6) The request has to be sent by a PhD or Postdoc. If a BSc-or MSc-student is working on a setup and wants to do an experiment outside office hours, the request has to be sent by his/her supervising PhD or Postdoc. The PhD/Postdoc is responsible for his/her student and has to be aware what he/she is doing.
- 7) Good planning is essential. Working outside office hours should be kept to a minimum and only if it is not possible otherwise. If you can do experiments within office hours (experiments < 9 hours, possible to finish experimental work before 17.00 hours), you should do them during daytime.
- 8) Also it is highly preferred to do experimental work during regular weekdays than in the weekend, so preferably do experiments from Monday to Friday instead of the weekend.

If all points above have been met, an request for experimental work outside office hours can be send by the PhD or Postdoc:

A) Experiment outside office hours during a weekday (overnight experiment)

- 9) As soon as you know you want to do an experiment outside office hours already tell the Area Supervisor (Harrie Jansma) and/or Deputy Area Supervisor (Atul Bansode).
- 10) Perform the leak test (see point 5) and record this in the logbook.
Make sure this is finished well before 16.00 hours.

Because the Emergency Response Team is only available until 17.00, experimental work has to be started up well before that (so starting just before 17.00 is not a good idea, since most trouble happen at start-up and ending).

Do **NOT** start the experiment yet.

- 11) Send an e-mail with your experimental request to the Area Supervisor (AS) (h.jansma@tudelft.nl) and Deputy Area Supervisor (DAS) (a.b.bansode@tudelft.nl) and cc other people who are involved in this experiment (for example your student) **before 16.00 hours.**

Mention:

- Which Setup
- Location (Box-number or which fume hood)
- What kind of experiment
- Type and amount of catalyst
- Flow ranges
- Pressure ranges
- Temperature ranges and heating rates
- Length of experiment
- Your phone number where you can be reached in case of calamity (preferably a mobile phone number)
- Your employee number (mentioned on your campus card below your picture)

- 12) The Area Supervisor (or the Deputy Area Supervisor in case the Area Supervisor is not available) will judge your request. If the (D)AS has questions, make sure all questions are answered.

- 13) Only after written approval by e-mail from the (Deputy) Area Supervisor, you are allowed to start your experiment.

All experimental activities which require your presence should be finished before 17.00 hours. If the request is not approved, you are not allowed to start your experiment.

- 14) If you notice during start up that something goes wrong, immediately inform the (Deputy) Area Supervisor and write down in the logbook. Stop the setup in a safe way. You are **NOT** allowed to continue the experiment. First the issue has to be solved. After solving the issue you have to start at point 9)

B) Experiment outside office hours starting on a weekday (Monday-Thursday) and including a weekend (Saturday-Sunday) or a national holiday.

- 9) Check which person is available to come to Building 67 in the weekend if that would be required. Preferably a student/PhD/Postdoc who also is familiar with this setup, but otherwise a colleague (not a friend/roommate).

Be aware: Even if you use Teamviewer, there can be situations where Teamviewer can give you a reason to visit the setup in the weekend, so always make sure you have somebody who can join you if needed.

- 10) As soon as you know you want to do an experiment outside office hours already tell the Area Supervisor (Harrie Jansma) and/or Deputy Area Supervisor (Atul Bansode).

- 11) Perform the leak test (see point 5) and record this in the logbook.

Make sure this is finished well before 16.00 hours.

Because the Emergency Response Team is only available until 17.00, experimental work has to be started up well before that (so starting just before 17.00 is not a good idea, since most trouble happen at start up and ending).

Do **NOT** start the experiment yet.

- 12) Send an e-mail with your experimental request to the Area Supervisor (AS) (h.jansma@tudelft.nl) and Deputy Area Supervisor (DAS) (a.b.bansode@tudelft.nl) and cc other people who are involved in this experiment (for example your student) **before 16.00 hours.**

Mention:

- Which Setup
- Location (Box-number or which fume hood)
- What kind of experiment
- Type and amount of catalyst
- Flow ranges
- Pressure ranges
- Temperature ranges and heating rates
- Length of experiment
- Mention how you will keep track of the status of the setup (is Teamviewer active so you can check from a distance or do you come to Building 67 every day?)
- Your phone number where you can be reached in case of calamity (preferably a mobile phone number)
- Your employee number (mentioned on your campus card below your picture)
- The Name, phone number and employee number of the person who can accompany you to visit the building 67 in the weekend.

- 13) The Area Supervisor (or the Deputy Area Supervisor in case the Area Supervisor is not available) will judge your request. If the (D)AS has questions, make sure all questions are answered.

15) Only after written approval by e-mail from the (Deputy) Area Supervisor, you are allowed to start your experiment.

All experimental activities which require your presence should be finished before 17.00 hours. If the request is not approved, you are not allowed to start your experiment.

16) If you notice during start up that something goes wrong, immediately inform the (Deputy) Area Supervisor and write down in the logbook. Stop the setup in a safe way. You are **NOT** allowed to continue the experiment. First the issue has to be solved. After solving the issue you have to start at point 9)

C) Experiment outside office hours starting on the last day (usually Friday) before a weekend or national holiday.

9) Check which person is available to come to Building 67 in the weekend if that would be required. Preferably a student/PhD/Postdoc who also is familiar with this setup, but otherwise a colleague (not a friend/roommate).

Be aware: Even if you use Teamviewer, there can be situations where Teamviewer can give you a reason to visit the setup in the weekend, so always make sure you have somebody who can join you if needed.

10) As soon as you know you want to do an experiment outside office hours already tell the Area Supervisor (Harrie Jansma) and/or Deputy Area Supervisor (Atul Bansode).

11) Perform the leak test (see point 5) and record this in the logbook. Make sure this is finished well **before 14.00 hours**.

Because the Emergency Response Team is only available until 17.00, experimental work has to be started up well before that. Since experimental work which keeps running over the weekend has to be reported to the security of TU Delft, the start should be clear around 14.00 hours. Do **NOT** start the experiment yet.

- 12) Send an e-mail with your experimental request to the Area Supervisor (h.jansma@tudelft.nl) and Deputy Area Supervisor (a.b.bansode@tudelft.nl) and cc other people who are involved in this experiment (for example your student) **before 14.00 hours.**

Mention:

- Which Setup
 - Location (Box-number or which fume hood)
 - What kind of experiment
 - Type and amount of catalyst
 - Flow ranges
 - Pressure ranges
 - Temperature ranges and heating rates
 - Length of experiment
 - Mention how you will keep track of the status of the setup (is Teamviewer active so you can check from a distance or do you come to Building 67 every day?)
 - Your phone number where you can be reached in case of calamity (preferably a mobile phone number)
 - Your employee number (mentioned on your campus card below your picture)
 - The Name, phone number and employee number of the person who can accompany you to visit the building 67 in the weekend.
- 13) The Area Supervisor (or the Deputy Area Supervisor in case the Area Supervisor is not available) will judge your request. If the (D)AS has questions, make sure all questions are answered.
- 14) Only after written approval by e-mail from the (Deputy) Area Supervisor, you are allowed to start your experiment. **All experimental activities which require your presence should be finished before 17.00 hours. If the request is not approved, you are not allowed to start your experiment.**
- 15) The (Deputy) Area Supervisor informs security via safety-ud@tudelft.nl that an experiment will be carried out in Building 67, mentioning the exact location, timeframe and experimental details.
- 16) If you notice during start up that something goes wrong, immediately inform the (Deputy) Area Supervisor and write down in the logbook. Stop the setup in a safe way. You are **NOT** allowed to continue the experiment. First the issue has to be solved. After solving the issue you have to start at point 9)
- 16) During the weekend check the setup via Teamviewer or visit the setup together with the person you asked for. If Teamviewer gives a reason to visit the setup, inform the (Deputy) Area Supervisor via Whatsapp of the situation.
- 17) If you visit the setup, call G4S on 82777, so they can open the main entrance door of Building 67 for you. Visit should just be to check the setup or in calamity to turn off equipment (no entering of the box). Bring your campus card when you visit the setup.

Concluding Remarks:

When you perform experiments, always keep a logbook, which should be on the desk near the setup, so it can always be checked by an (Deputy) Area Supervisor or Emergency Response Team or Fire brigade in case of Emergency.

Mention:

- Date & Time
- Experimental conditions (for example: flow/pressure/temperature)
- Chemicals involved (amount and type)
- Changes in conditions (both planned and unplanned)
- Abnormal behaviour
- Changes to the setup
- If something breaks

Experiments in the High Pressure boxes should be performed with the door closed, ventilation on (and functioning) and no water detected (Light indicator **must** be **GREEN**).

Experiments in the Drive-In Fume hood should be performed with the door closed.
Experiments in the "Standard" Fume hood should be performed with the windows down.
Experiments in the lab: Use point suction if possible.

The (Deputy) Area Supervisor always has the right to stop an experiment and/or turn off the equipment if:

- A setup has no valid Safety Assessment Sheet or Safety Report
- The equipment is running outside office hours (after 17.00 hours) and no request for overnight operation has been send
- The equipment is running outside office hours (after 17.00 hours) and no approval of an overnight request has been given
- In any case he/she judges that there is a (potential) dangerous situation

If you see a (potential) dangerous situation in an experimental setup:

- Immediately warn the person who is working on that setup / doing the experimental work and the (Deputy) Area Supervisor
- If there is a clear danger and no time to loose: press the Emergency Button located outside the Box or near the setup to turn off the experimental setup.

A request for working outside office hours can also be denied, because maintenance work is planned (on the roof); construction workers are only allowed on the roof if there are no (potential) dangerous gasses vented. The date and time of the maintenance work is usually communicated by the Area Supervisor towards the PhD's and Postdocs. But it's one of the reasons why you are not allowed to start with the experimental work until you have received approval by e-mail.

Area Supervisor: Harrie Jansma h.jansma@tudelft.nl
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Deputy Area Supervisor: Atul Bansode a.b.bansode@tudelft.nl
Tel. 015-27 81060 Outside office hours: 06-12900134

RID/G4S: safety-ud@tudelft.nl Tel. 015-27 82777

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